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Sequence Listing was accepted.

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Reviewer: markspencer

Timestamp: [year=2010; month=4; day=16; hr=6; min=41; sec=53; ms=1;]

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Application No: 10553710

Version No: 1.0

Input Set:

Output Set:

Started: 2010-04-15 16:10:43.945

Finished: 2010-04-15 16:10:45.736

Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 791 ms

Total Warnings: 13

Total Errors: 0

No. of SeqIDs Defined: 37

Actual SeqID Count: 37

| Error code | Error Description |
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| W 213 | Artificial or Unknown found in <213> in SEQ ID (22) |
| W 213 | Artificial or Unknown found in <213> in SEQ ID (23) |
| W 213 | Artificial or Unknown found in <213> in SEQ ID (26) |
| W 213 | Artificial or Unknown found in <213> in SEQ ID (27) |
| W 213 | Artificial or Unknown found in <213> in SEQ ID (28) |
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| W 213 | Artificial or Unknown found in <213> in SEQ ID (35) |
| W 213 | Artificial or Unknown found in <213> in SEQ ID (36) |

SEQUENCE LISTING

<110> Sah, Dinah Wen-Yee
Pepinsky, R. Blake
Rossomando, Anthony

<120> POLYMER-CONJUGATED, GLYCOSYLATED
NEUBLASTIN

<130> 13751-035W01

<140> 10553710

<141> 2010-04-15

<150> PCT/US04/011745

<151> 2004-04-16

<150> US 60/463,899

<151> 2003-04-18

<160> 37

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 113

<212> PRT

<213> Artificial Sequence

<220>

<223> consensus sequence

<220>

<221> VARIANT

<222> 3

<223> Xaa = Gly or Thr

<220>

<221> VARIANT

<222> 4

<223> Xaa = Pro or Arg

<220>

<221> VARIANT

<222> 5

<223> Xaa = Gly or Ser

<220>

<221> VARIANT

<222> 10, 11

<223> Xaa = Ala or Thr

<220>

<221> VARIANT

<222> 12
<223> Xaa = Gly or Asp

<220>
<221> VARIANT
<222> 26, 33
<223> Xaa = Arg or Ser

<220>
<221> VARIANT
<222> 38, 76
<223> Xaa = Val or Ile

<220>
<221> VARIANT
<222> 53
<223> Xaa = Pro or Gln

<220>
<221> VARIANT
<222> 69
<223> Xaa = Pro or Ser

<220>
<221> VARIANT
<222> 103
<223> Xaa = Arg or His

<400> 1
Ala Gly Xaa Xaa Xaa Ser Arg Ala Arg Xaa Xaa Xaa Ala Arg Gly Cys
1 5 10 15
Arg Leu Arg Ser Gln Leu Val Pro Val Xaa Ala Leu Gly Leu Gly His
20 25 30
Xaa Ser Asp Glu Leu Xaa Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg
35 40 45
Arg Ala Arg Ser Xaa His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala
50 55 60
Gly Ala Leu Arg Xaa Pro Pro Gly Ser Arg Pro Xaa Ser Gln Pro Cys
65 70 75 80
Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser
85 90 95
Thr Trp Arg Thr Val Asp Xaa Leu Ser Ala Thr Ala Cys Gly Cys Leu
100 105 110
Gly

<210> 2
<211> 113
<212> PRT
<213> Homo sapiens

<400> 2
Ala Gly Gly Pro Gly Ser Arg Ala Arg Ala Ala Gly Ala Arg Gly Cys
1 5 10 15
Arg Leu Arg Ser Gln Leu Val Pro Val Arg Ala Leu Gly Leu Gly His
20 25 30
Arg Ser Asp Glu Leu Val Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg

| | | |
|---|-----|-----|
| 35 | 40 | 45 |
| Arg Ala Arg Ser Pro His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala | | |
| 50 | 55 | 60 |
| Gly Ala Leu Arg Pro Pro Pro Gly Ser Arg Pro Val Ser Gln Pro Cys | | |
| 65 | 70 | 75 |
| Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser | | |
| 85 | 90 | 95 |
| Thr Trp Arg Thr Val Asp Arg Leu Ser Ala Thr Ala Cys Gly Cys Leu | | |
| 100 | 105 | 110 |
| Gly | | |

<210> 3
 <211> 113
 <212> PRT
 <213> Mus musculus

| |
|---|
| <400> 3 |
| Ala Gly Thr Arg Ser Ser Arg Ala Arg Thr Thr Asp Ala Arg Gly Cys |
| 1 5 10 15 |
| Arg Leu Arg Ser Gln Leu Val Pro Val Ser Ala Leu Gly Leu Gly His |
| 20 25 30 |
| Ser Ser Asp Glu Leu Ile Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg |
| 35 40 45 |
| Arg Ala Arg Ser Gln His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala |
| 50 55 60 |
| Gly Ala Leu Arg Ser Pro Pro Gly Ser Arg Pro Ile Ser Gln Pro Cys |
| 65 70 75 80 |
| Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser |
| 85 90 95 |
| Thr Trp Arg Thr Val Asp His Leu Ser Ala Thr Ala Cys Gly Cys Leu |
| 100 105 110 |
| Gly |

<210> 4
 <211> 113
 <212> PRT
 <213> Rattus norvegicus

| |
|---|
| <400> 4 |
| Ala Gly Thr Arg Ser Ser Arg Ala Arg Ala Thr Asp Ala Arg Gly Cys |
| 1 5 10 15 |
| Arg Leu Arg Ser Gln Leu Val Pro Val Ser Ala Leu Gly Leu Gly His |
| 20 25 30 |
| Ser Ser Asp Glu Leu Ile Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg |
| 35 40 45 |
| Arg Ala Arg Ser Pro His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala |
| 50 55 60 |
| Gly Ala Leu Arg Ser Pro Pro Gly Ser Arg Pro Ile Ser Gln Pro Cys |
| 65 70 75 80 |
| Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser |
| 85 90 95 |
| Thr Trp Arg Thr Val Asp His Leu Ser Ala Thr Ala Cys Gly Cys Leu |
| 100 105 110 |
| Gly |

<210> 5
<211> 220
<212> PRT
<213> Homo sapiens

<400> 5
Met Glu Leu Gly Leu Gly Gly Leu Ser Thr Leu Ser His Cys Pro Trp
1 5 10 15
Pro Arg Arg Gln Pro Ala Leu Trp Pro Thr Leu Ala Ala Leu Ala Leu
20 25 30
Leu Ser Ser Val Ala Glu Ala Ser Leu Gly Ser Ala Pro Arg Ser Pro
35 40 45
Ala Pro Arg Glu Gly Pro Pro Pro Val Leu Ala Ser Pro Ala Gly His
50 55 60
Leu Pro Gly Gly Arg Thr Ala Arg Trp Cys Ser Gly Arg Ala Arg Arg
65 70 75 80
Pro Pro Pro Gln Pro Ser Arg Pro Ala Pro Pro Pro Pro Ala Pro Pro
85 90 95
Ser Ala Leu Pro Arg Gly Gly Arg Ala Ala Arg Ala Gly Gly Pro Gly
100 105 110
Ser Arg Ala Arg Ala Ala Gly Ala Arg Gly Cys Arg Leu Arg Ser Gln
115 120 125
Leu Val Pro Val Arg Ala Leu Gly Leu Gly His Arg Ser Asp Glu Leu
130 135 140
Val Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg Ala Arg Ser Pro
145 150 155 160
His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg Pro
165 170 175
Pro Pro Gly Ser Arg Pro Val Ser Gln Pro Cys Cys Arg Pro Thr Arg
180 185 190
Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr Trp Arg Thr Val
195 200 205
Asp Arg Leu Ser Ala Thr Ala Cys Gly Cys Leu Gly
210 215 220

<210> 6
<211> 140
<212> PRT
<213> Homo sapiens

<400> 6
Pro Pro Pro Gln Pro Ser Arg Pro Ala Pro Pro Pro Pro Ala Pro Pro
1 5 10 15
Ser Ala Leu Pro Arg Gly Gly Arg Ala Ala Arg Ala Gly Gly Pro Gly
20 25 30
Ser Arg Ala Arg Ala Ala Gly Ala Arg Gly Cys Arg Leu Arg Ser Gln
35 40 45
Leu Val Pro Val Arg Ala Leu Gly Leu Gly His Arg Ser Asp Glu Leu
50 55 60
Val Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg Ala Arg Ser Pro
65 70 75 80
His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg Pro
85 90 95
Pro Pro Gly Ser Arg Pro Val Ser Gln Pro Cys Cys Arg Pro Thr Arg
100 105 110
Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr Trp Arg Thr Val

| | | |
|-------------------------|-------------------------|-----|
| 115 | 120 | 125 |
| Asp Arg Leu Ser Ala Thr | Ala Cys Gly Cys Leu Gly | |
| 130 | 135 | 140 |

<210> 7
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 7

| | | |
|---|-----|-------|
| Ala Ala Arg Ala Gly Gly Pro Gly Ser Arg Ala Arg Ala Ala Gly Ala | | |
| 1 | 5 | 10 15 |
| Arg Gly Cys Arg Leu Arg Ser Gln Leu Val Pro Val Arg Ala Leu Gly | | |
| 20 | 25 | 30 |
| Leu Gly His Arg Ser Asp Glu Leu Val Arg Phe Arg Phe Cys Ser Gly | | |
| 35 | 40 | 45 |
| Ser Cys Arg Arg Ala Arg Ser Pro His Asp Leu Ser Leu Ala Ser Leu | | |
| 50 | 55 | 60 |
| Leu Gly Ala Gly Ala Leu Arg Pro Pro Pro Gly Ser Arg Pro Val Ser | | |
| 65 | 70 | 75 80 |
| Gln Pro Cys Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp | | |
| 85 | 90 | 95 |
| Val Asn Ser Thr Trp Arg Thr Val Asp Arg Leu Ser Ala Thr Ala Cys | | |
| 100 | 105 | 110 |
| Gly Cys Leu Gly | | |
| 115 | | |

<210> 8
 <211> 112
 <212> PRT
 <213> Homo sapiens

<400> 8

| | | |
|---|-----|-------|
| Gly Gly Pro Gly Ser Arg Ala Arg Ala Ala Gly Ala Arg Gly Cys Arg | | |
| 1 | 5 | 10 15 |
| Leu Arg Ser Gln Leu Val Pro Val Arg Ala Leu Gly Leu Gly His Arg | | |
| 20 | 25 | 30 |
| Ser Asp Glu Leu Val Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg | | |
| 35 | 40 | 45 |
| Ala Arg Ser Pro His Asp Leu Ser Leu Ala Ser Leu Gly Ala Gly | | |
| 50 | 55 | 60 |
| Ala Leu Arg Pro Pro Pro Gly Ser Arg Pro Val Ser Gln Pro Cys Cys | | |
| 65 | 70 | 75 80 |
| Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr | | |
| 85 | 90 | 95 |
| Trp Arg Thr Val Asp Arg Leu Ser Ala Thr Ala Cys Gly Cys Leu Gly | | |
| 100 | 105 | 110 |

<210> 9
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 9

| | | |
|---|---|-------|
| Gly Pro Gly Ser Arg Ala Arg Ala Ala Gly Ala Arg Gly Cys Arg Leu | | |
| 1 | 5 | 10 15 |
| Arg Ser Gln Leu Val Pro Val Arg Ala Leu Gly Leu Gly His Arg Ser | | |

| | | |
|---|-----|-----|
| 20 | 25 | 30 |
| Asp Glu Leu Val Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg Ala | | |
| 35 | 40 | 45 |
| Arg Ser Pro His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly Ala | | |
| 50 | 55 | 60 |
| Leu Arg Pro Pro Pro Gly Ser Arg Pro Val Ser Gln Pro Cys Cys Arg | | |
| 65 | 70 | 75 |
| Pro Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr Trp | | |
| 85 | 90 | 95 |
| Arg Thr Val Asp Arg Leu Ser Ala Thr Ala Cys Gly Cys Leu Gly | | |
| 100 | 105 | 110 |

<210> 10
 <211> 110
 <212> PRT
 <213> Homo sapiens

| |
|---|
| <400> 10 |
| Pro Gly Ser Arg Ala Arg Ala Ala Gly Ala Arg Gly Cys Arg Leu Arg |
| 1 5 10 15 |
| Ser Gln Leu Val Pro Val Arg Ala Leu Gly Leu Gly His Arg Ser Asp |
| 20 25 30 |
| Glu Leu Val Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg Ala Arg |
| 35 40 45 |
| Ser Pro His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly Ala Leu |
| 50 55 60 |
| Arg Pro Pro Pro Gly Ser Arg Pro Val Ser Gln Pro Cys Cys Arg Pro |
| 65 70 75 80 |
| Thr Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr Trp Arg |
| 85 90 95 |
| Thr Val Asp Arg Leu Ser Ala Thr Ala Cys Gly Cys Leu Gly |
| 100 105 110 |

<210> 11
 <211> 109
 <212> PRT
 <213> Homo sapiens

| |
|---|
| <400> 11 |
| Gly Ser Arg Ala Arg Ala Ala Gly Ala Arg Gly Cys Arg Leu Arg Ser |
| 1 5 10 15 |
| Gln Leu Val Pro Val Arg Ala Leu Gly Leu Gly His Arg Ser Asp Glu |
| 20 25 30 |
| Leu Val Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg Ala Arg Ser |
| 35 40 45 |
| Pro His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg |
| 50 55 60 |
| Pro Pro Pro Gly Ser Arg Pro Val Ser Gln Pro Cys Cys Arg Pro Thr |
| 65 70 75 80 |
| Arg Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr Trp Arg Thr |
| 85 90 95 |
| Val Asp Arg Leu Ser Ala Thr Ala Cys Gly Cys Leu Gly |
| 100 105 |

<210> 12
 <211> 108
 <212> PRT

<213> Homo sapiens

<400> 12

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Ser Arg Ala Arg Ala Ala Gly Ala Arg Gly Cys Arg Leu Arg Ser Gln
 1           5           10           15
Leu Val Pro Val Arg Ala Leu Gly Leu Gly His Arg Ser Asp Glu Leu
 20           25           30
Val Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg Ala Arg Ser Pro
 35           40           45
His Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg Pro
 50           55           60
Pro Pro Gly Ser Arg Pro Val Ser Gln Pro Cys Cys Arg Pro Thr Arg
 65           70           75           80
Tyr Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr Trp Arg Thr Val
 85           90           95
Asp Arg Leu Ser Ala Thr Ala Cys Gly Cys Leu Gly
 100           105
```

<210> 13

<211> 107

<212> PRT

<213> Homo sapiens

<400> 13

```
Arg Ala Arg Ala Ala Gly Ala Arg Gly Cys Arg Leu Arg Ser Gln Leu
 1           5           10           15
Val Pro Val Arg Ala Leu Gly Leu Gly His Arg Ser Asp Glu Leu Val
 20           25           30
Arg Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg Ala Arg Ser Pro His
 35           40           45
Asp Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg Pro Pro
 50           55           60
Pro Gly Ser Arg Pro Val Ser Gln Pro Cys Cys Arg Pro Thr Arg Tyr
 65           70           75           80
Glu Ala Val Ser Phe Met Asp Val Asn Ser Thr Trp Arg Thr Val Asp
 85           90           95
Arg Leu Ser Ala Thr Ala Cys Gly Cys Leu Gly
 100           105
```

<210> 14

<211> 106

<212> PRT

<213> Homo sapiens

<400> 14

```
Ala Arg Ala Ala Gly Ala Arg Gly Cys Arg Leu Arg Ser Gln Leu Val
 1           5           10           15
Pro Val Arg Ala Leu Gly Leu Gly His Arg Ser Asp Glu Leu Val Arg
 20           25           30
Phe Arg Phe Cys Ser Gly Ser Cys Arg Arg Ala Arg Ser Pro His Asp
 35           40           45
Leu Ser Leu Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg Pro Pro Pro
 50           55           60
Gly Ser Arg Pro Val Ser Gln Pro Cys Cys Arg Pro Thr Arg Tyr Glu
 65           70           75           80
Ala Val Ser Phe Met Asp Val Asn Ser Thr Trp Arg Thr Val Asp Arg
 85           90           95
```

Leu Ser Ala Thr Ala Cys Gly Cys Leu Gly
100 105

<210> 15

<211> 105

<212> PRT

<213> Homo sapiens

<400> 15

Arg Ala Ala Gly Ala Arg Gly Cys Arg Leu Arg Ser Gln Leu Val Pro
1 5 10 15
Val Arg Ala Leu Gly Leu Gly His Arg Ser Asp Glu Leu Val Arg Phe
20 25 30
Arg Phe Cys Ser Gly Ser Cys Arg Arg Ala Arg Ser Pro His Asp Leu
35 40 45
Ser Leu Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg Pro Pro Pro Gly
50 55 60
Ser Arg Pro Val Ser Gln Pro Cys Cys Arg Pro Thr Arg Tyr Glu Ala
65 70 75 80
Val Ser Phe Met Asp Val Asn Ser Thr Trp Arg Thr Val Asp Arg Leu
85 90 95
Ser Ala Thr Ala Cys Gly Cys Leu Gly
100 105

<210> 16

<211> 104

<212> PRT

<213> Homo sapiens

<400> 16

Ala Ala Gly Ala Arg Gly Cys Arg Leu Arg Ser Gln Leu Val Pro Val
1 5 10 15
Arg Ala Leu Gly Leu Gly His Arg Ser Asp Glu Leu Val Arg Phe Arg
20 25 30
Phe Cys Ser Gly Ser Cys Arg Arg Ala Arg Ser Pro His Asp Leu Ser
35 40 45
Leu Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg Pro Pro Pro Gly Ser
50 55 60
Arg Pro Val Ser Gln Pro Cys Cys Arg Pro Thr Arg Tyr Glu Ala Val
65 70 75 80
Ser Phe Met Asp Val Asn Ser Thr Trp Arg Thr Val Asp Arg Leu Ser
85 90 95
Ala Thr Ala Cys Gly Cys Leu Gly
100

<210> 17

<211> 103

<212> PRT

<213> Homo sapiens

<400> 17

Ala Gly Ala Arg Gly Cys Arg Leu Arg Ser Gln Leu Val Pro Val Arg
1 5 10 15
Ala Leu Gly Leu Gly His Arg Ser Asp Glu Leu Val Arg Phe Arg Phe
20 25 30
Cys Ser Gly Ser Cys Arg Arg Ala Arg Ser Pro His Asp Leu Ser Leu
35 40 45

Ala Ser Leu Leu Gly Ala Gly Ala Leu Arg Pro Pro Pro Gly Ser Arg
 50 55 60
 Pro Val Ser Gln Pro Cys Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser
 65 70 75 80
 Phe Met Asp Val Asn Ser Thr Trp Arg Thr Val Asp Arg Leu Ser Ala
 85 90 95
 Thr Ala Cys Gly Cys Leu Gly
 100

<210> 18
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 18
 Gly Ala Arg Gly Cys Arg Leu Arg Ser Gln Leu Val Pro Val Arg Ala
 1 5 10 15
 Leu Gly Leu Gly His Arg Ser Asp Glu Leu Val Arg Phe Arg Phe Cys
 20 25 30
 Ser Gly Ser Cys Arg Arg Ala Arg Ser Pro His Asp Leu